

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
REQUEST FOR FILING NATIONAL PHASE OF
PCT APPLICATION UNDER 35 U.S.C. 371 AND 37 CFR 1.494 OR 1.495To: Hon. Commissioner of Patents
Washington, D.C. 20231TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)Atty Dkt: PM 275480 /114425.8/DV/mb
M# /Client Ref.

From: Pillsbury Madison & Sutro LLP, IP Group:

Date: Tuesday, December 26, 2000This is a **REQUEST** for **FILING** a PCT/USA National Phase Application based on:

- | | | |
|------------------------------|------------------------------|-------------------------------------|
| 1. International Application | 2. International Filing Date | 3. Earliest Priority Date Claimed |
| PCT/CH98/00276 | 23 JUN 1998 | 23 JUN 1998 |
| <u>country code</u> | Day MONTH Year | Day MONTH Year |
| | | (use item 2 if no earlier priority) |
4. Measured from the earliest priority date in item 3, this PCT/USA National Phase Application Request is being filed within:

(a) ☐ 20 months from above item 3 date (b) ☒ 30 months from above item 3 date,(c) Therefore, the due date (unextendable) is **December 23, 2000 (Saturday)**
December 24, 2000 (Sunday)
December 25, 2000 (Holiday)5. Title of Invention METHOD OF OFFERING FOR SALE, ORDERING AND SELLING GOODS AND SERVICES6. Inventor(s) RITTER, Rudolf

Applicant herewith submits the following under 35 U.S.C. 371 to effect filing:

7. ☒ Please immediately start national examination procedures (35 U.S.C. 371 (f)).
8. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2)) is transmitted herewith (file if in English but, if in foreign language, file only if not transmitted to PTO by the International Bureau) including:
- a. ☐ Request;
- b. ☐ Abstract;
- c. pgs. Spec. and Claims;
- d. sheet(s) Drawing which are ☐ informal ☐ formal of size ☐ A4 ☐ 11"
9. ☒ A copy of the International Application has been transmitted by the International Bureau.
10. A translation of the International Application into English (35 U.S.C. 371(c)(2))
- a. ☒ is transmitted herewith including: (1) ☒ Request; (2) ☒ Abstract;
- (3) 19 pgs. Spec. and Claims;
- (4) 2 sheet(s) Drawing which are:
- ☐ informal ☒ formal of size ☒ A4 ☐ 11"
- b. ☐ is not required, as the application was filed in English.
- c. ☐ is not herewith, but will be filed when required by the forthcoming PTO Missing Requirements Notice per Rule 494(c) if box 4(a) is X'd or Rule 495(c) if box 4(b) is X'd.
- d. ☒ Translation verification attached (not required now).
11. ☒ **PLEASE AMEND** the specification before its first line by inserting as a separate paragraph:
- a. ☒ --This application is the national phase of international application PCT/CH98/00276 filed June 23, 1998 which designated the U.S. and that international application ☐ was ☒ was not published under PCT Article 21(2) in English.--
- b. ☐ --This application also claims the benefit of U.S. Provisional Application No. 60/ , filed --

RE: USA National Filing of PCT /CH98/00276

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12. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)), i.e., before 18th month from first priority date above in item 3, are transmitted herewith (file only if in English) including:
13. ☒ PCT Article 19 claim amendments (if any) have been transmitted by the International Bureau
14. ☐ Translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)), i.e., of claim amendments made before 18th month, is attached (required by 20th month from the date in item 3 if box 4(a) above is X'd, or 30th month if box 4(b) is X'd, or else amendments will be considered canceled).
15. **A declaration of the inventor** (35 U.S.C. 371(c)(4))
 a. ☐ is submitted herewith ☐ Original ☐ Facsimile/Copy
 b. ☒ is not herewith, but will be filed when required by the forthcoming PTO Missing Requirements Notice per Rule 494(c) if box 4(a) is X'd or Rule 495(c) if box 4(b) is X'd.
16. **An International Search Report (ISR):**
 a. Was prepared by ☒ European Patent Office ☐ Japanese Patent Office ☐ Other
 b. ☒ has been transmitted by the International Bureau to PTO.
 c. ☒ copy herewith (2 pg(s).) ☒ plus Annex of family members (1 pg(s).)
17. **International Preliminary Examination Report (IPER):**
 a. ☒ has been transmitted (if this letter is filed after 28 months from date in item 3) in English by the International Bureau with Annexes (if any) in original language.
 b. ☐ copy herewith in English.
 c. 1 ☒ IPER Annex(es) in original language ("Annexes" are amendments made to claims/spec/drawings during Examination) including attached amended:
 Specification/claim pages #1,2,3,3a,15-17 claims #1-31
 Dwg Sheets #
 c. 2 ☒ Translation of Annex(es) to IPER (required by 30th month due date, or else annexed amendments will be considered canceled).
18. **Information Disclosure Statement** including:
 a. ☒ Attached Form PTO-1449 listing documents
 b. ☐ Attached copies of documents listed on Form PTO-1449
 c. ☒ A concise explanation of relevance of ISR references is given in the ISR.
19. ☐ **Assignment** document and Cover Sheet for recording are attached. Please mail the recorded assignment document back to the person whose signature, name and address appear at the end of this letter.
20. ☐ Copy of Power to IA agent.
21. ☐ **Drawings** (complete only if 8d or 10a(4) not completed): __ sheet(s) per set: ☐ 1 set informal; ☐ Formal of size ☐ A4 ☐ 11"
22. Small Entity Status ☐ is Not claimed ☐ is claimed (pre-filing confirmation required)
- 22(a) __ (No.) Small Entity Statement(s) enclosed (since 9/8/00 Small Entity Statements(s) not essential to make claim)
23. **Priority** is hereby claimed under 35 U.S.C. 119/365 based on the priority claim and the certified copy, both filed in the International Application during the international stage based on the filing in (country) Switzerland of:

Application No.	Filing Date	Application No.	Filing Date
(1) PCT/CH98/00276	23 JUN 1998	(2) _____	_____
(3) _____	_____	(4) _____	_____
(5) _____	_____	(6) _____	_____

 a. ☒ See Form PCT/IB/304 sent to US/DO with copy of priority documents. If copy has not been received, please proceed promptly to obtain same from the IB.
 b. ☐ Copy of Form PCT/IB/304 attached.
24. Attached:

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25. Preliminary Amendment: SEE ATTACHED

25.5 Per Item 17.c2, **cancel original** pages #___, claims #___, Drawing Sheets #26. **Calculation of the U.S. National Fee (35 U.S.C. 371 (c)(1)) and other fees is as follows:**Based on amended claim(s) per above item(s) ☐ 12, ☐ 14, ☒ 17, ☒ 25, ☐ 25.5 (hilitte)

Total Effective Claims	minus 20 =	0	x \$18/\$9	=	\$0	966/967
Independent Claims	minus 3 =	0	x \$80/\$40	=	\$0	964/965
If any proper (ignore improper) Multiple Dependent claim is present,			add \$270/\$135	+	0	968/969

BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(4)): → → BASIC FEE REQUIRED, NOW → → → ↓

A. If country code letters in item 1 are **not** "US", "BR", "BB", "TT", "MX", "IL", "NZ", "IN" or "ZA" ↓

See item 16 re:

1. Search Report was <u>not prepared</u> by EPO or JPO -----	add \$1000/\$500		960/961
2. Search Report was prepared by EPO or JPO -----	add \$860/\$430	+860	970/971

SKIP B, C, D AND E UNLESS country code letters in item 1 are "US", "BR", "BB", "TT", "MX", "IL", "NZ", "IN" or "ZA" ↓

(X) → <input type="checkbox"/> B. If <u>USPTO</u> did not issue <u>both</u> International Search Report (ISR) <u>and</u> (if box 4(b) above is X'd) the International Examination Report (IPER), -----	add \$970/\$485	+0	960/961
(only) (one) → <input type="checkbox"/> C. If <u>USPTO</u> issued ISR but not IPER (or box 4(a) above is X'd), -----	add \$710/\$355	+0	958/969
(these) (4) → <input type="checkbox"/> D. If <u>USPTO</u> issued IPER but IPER Sec. V boxes <u>not all</u> 3 (boxes) YES, -----	add \$690/\$345	+0	956/957
→ <input type="checkbox"/> E. If international preliminary examination fee was paid to <u>USPTO</u> and Rules 492(a)(4) and 496(b) <u>satisfied</u> (IPER Sec. V <u>all</u> 3 boxes YES for <u>all</u> claims), -----	add \$100/\$50	+0	962/963

27. SUBTOTAL = \$860

28. If Assignment box 19 above is X'd, add Assignment Recording fee of ----\$40 +0 (581)

29. Attached is a check to cover the ----- TOTAL FEES \$860

Our Deposit Account No. 03-3975

Our Order No. 60237

C#

275480

M#

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 and 492 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. shown above for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filedPillsbury Madison & Sutro LLP
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NOTE: File in duplicate with 2 postcard receipts (PAT-103) & attachments.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

RITTER et al.

Group Art Unit: Unknown

Appln. No.: New Application

Examiner: Unknown

Filed: Herewith

TITLE: METHOD OF OFFERING FOR SALE,
ORDERING AND SELLING GOOD AND
SERVICES

December 26, 2000

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

Entry and consideration of the following amendments in the above-identified application
are requested.

IN THE CLAIMS:

Please amend the claims as follows:

Claim 2, line 1, change "the preceding claim" to --claim 1--.

Claim 3, line 1, change "the preceding claim" to --claim 2--.

Claim 4, line 1, change "the preceding claim" to --claim 3--.

Claims 5, 6, 9, 14, 15, 16 and 17, line 1, change "one of the preceding claims" to

--claim 1--.

Claim 7, line 1, change "the preceding claim" to --claim 6--.

Claim 8, line 1, change "one of the claims 6 to 7" to --claim 6--.

Claim 10, line 1, change "the preceding claim" to --claim 9--.

Claim 11, line 1, change “the preceding claim” to --claim 10--.

Claim 12, line 1, change “the preceding claim” to --claim 11--.

Claim 13, line 1, change “one of the claims 11 to 12” to --claim 11--.

Claim 18, line 1, change “one of the claims 1 to 16” to --claim 1--.

Claim 19, line 1, change “one of the preceding claims <one of the claims 1 to 16>
to --claim 1--.

Claim 21 line 1, change “the preceding claim” to --claim 20--.

Claim 22, line 1 change “one of the claims 20 to 21” to --claim 20--.

Claim 23, line 1, change “one of the claims 20 to 22” to --claim 20--.

Claim 24, line 1, change “the preceding claim” to --claim 23--.

Claim 25, line 1, change “one of the claims 23 to 24” to --claim 23--.

Claim 26, line 1, change “one of the claims 20 to 25” to --claim 20--.

Claim 27, line 1, change “one of the claims 20 to 26” to --claim 20--.

Claim 28, line 1, change “one of the claims 20 to 27” to --claim 20--.

Claim 29, line 1, change “one of the claims 20 to 27” to --claim 20--.

Claim 30, line 1, change “one of the claims 20 to 29” to --claim 20--.

Claim 31, line 1, change “one of the claims 20 to 30” to --claim 20--.

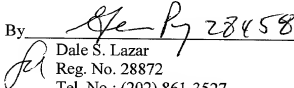
REMARKS

The amendments to the claims were made to eliminate the multiple dependencies. No new matter was intended to be added, nor is any new matter believed to have been added.

Accordingly, an early action on the merits is earnestly solicited.

Respectfully submitted,

PILLSBURY MADISON & SUTRO LLP

By  28458
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VERIFICATION OF TRANSLATION

I, the undersigned, hereby declare:

That my name and address are as stated below under my
signature;

That I am conversant with the English and German languages;
and

That the attached translation is a true translation prepared by
me of the accompanying International Application No. PCT/CH 98/00276
filed on June 23, 1998, and of the accompanying amended pages filed on
June 8, 2000, and July 21, 2000.

I hereby declare that all statements made herein of my own
knowledge are true and that all statements made on information and belief
are believed to be true; and further that these statements were made with
the knowledge that willful false statements and the like so made are
punishable by fine or imprisonment, or both, under Section 1001 of Title 18
of the United States Code and that such willful false statements may
jeopardize the validity of the application or any U.S. patent issued thereon.

December 6, 2000



(signature)
Ann Kistler
Friedlistrasse 4
CH-3006 Berne
Switzerland

09/720523

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TRANSLATION

Patent Cooperation Treaty

Appointment of an agent or common representative

The undersigned applicant(s) hereby appoint(s)

BOVARD LTD
Patent Attorneys
Optingenstrasse 16
CH-3000 Berne 25

to act before the competent international authorities concerning the international application filed with the Federal Institute of Intellectual Property, 3003 Berne, entitled:

"Method of Offering for Sales, Ordering and Selling Goods and Services"

Agent's file reference: 81.416/DV/mb

Number of the international application: PCT/CH 98/00276

Berne

(place)

29th June 1998

(date)

(signature)

(signature(s) of the applicant(s))

Swisscom AG
Walter Heutschi
Director Mobile

(signature)
Rudolf Ritter
Inventor

Please typewrite the name under each signature.

Method of Offering for Sale, Ordering and Selling Goods and Services

This invention relates to a method of offering for sale, ordering and selling goods and services. In particular this invention relates to a method of offering for sale, ordering and selling goods and services in which said goods and services
5 are offered for sale by at least one vendor to a multiplicity of participants in a mobile radio network by means of an offer identification which are <sic. is> received by interested participants in their mobile devices and transmitted to a service center via the mobile radio network.

Described in the patent US 5,345,501 is a telephone central office switch-
10 based system for processing and forwarding orders of customers to suppliers which, in addition to the central office, comprises a voice recognition unit. By means of voice prompts, a customer is asked to enter his PIN (Personal Identification Number) by means of selection keys of his telephone. After successful entry and verification of the PIN number, a product, for example a
15 video cassette with a particular film title, is selected by the customer in several steps (categories, subcategories) by means of selection keys or language, and this is confirmed by means of stored responses. Payment for the desired product takes place via credit card, the number of which must be entered by the customer, or via billing by the telephone operator. Such systems and similar ones are
20 known for the most varied applications; using such systems is often considered inconvenient and tedious by customers.

Described in WO 90/11661 is a catalog ordering system connected to the public switched telephone network (PSTN) in which a customer dials the number of an order service, and by means of spoken instructions is instructed to enter one
25 or more order numbers, it being possible for entered orders to be repeated to the customer and to be confirmed by him. Then, upon request of a supplier, the entered order numbers are transmitted to this supplier via the telephone line together with the telephone number of the customer. For increased security, the entering of an account number can be additionally requested from the customer.
30 This system functions in a similar way to that in the patent described above, and offers no automatic completion of payment.

Described in the patent US 4,797,913 is an order system in which products can be ordered directly by dialing a telephone number. The order system described in US 4,797,913 is based on a LATA (Local Access Transport Area)

switched network in which Feature Group D services are available which are selected by means of the first two digits "10" of said telephone number. Within this Feature Group D services, an interim switched network or in particular an order service center can be dialed by means of the subsequent three digits, ten
 5 digits still being available for identification of a supplier and his products. The order system thus described is especially suitable for catalog shipping services; how indications about quantities are transmitted or how the identity of the client is established remains open, however, since only the telephone number of the telephone used for the order is known.

10 What all the order methods or systems described above have in common is that they do not make it possible to transmit ordered products, in particular ordered information, automatically and directly to the interested customer. Moreover these described systems do not make possible any automatic identification of the customer, but instead are based on his telephone number,
 15 and in some cases are based additionally on numbers which the customer has to enter. Furthermore the address information for the customer is not supplied by these systems, but instead administration thereof must be assumed by the suppliers.

Described in the patent application WO 96/25006 is an interactive
 20 broadcast system, in which customers can call a call center to order goods and services automatically via the telephone lines by means of a messaging device, which call center supplements, with the aid of a data base, the order data transmitted by the customer, and passes it on, together with a customer identification, to respective suppliers, who, for their part, deliver goods and
 25 services to the customer identified through the customer identification.

Described in the not yet published patent application PCT/CH96/00464 is a method and system for transmission of orders, in particular for transmission of product orders, orders for information, or payment transactions, in a telecommunications network, according to which said orders are transmitted by a multiplicity of
 30 participants in a telecommunications network, particularly, but not exclusively, a mobile radio network, to at least one supplier. Orders are thereby transmitted in short messages, not merely as bit streams, through the telecommunications network, but instead the data contained therein are linked to participant identification data from the participant data base of the telecommunications
 35 network. The method finds application in a telecommunications network in which

AMENDED PAGE

the identity of the calling participant is recognized by the service center of this network with each call, for example a mobile radio network based on the GSM standard. The participant needs only to enter an offer identification of the goods or services offered for sale that contains at least an identification of these goods or services as well as an identification of the respective supplier. Order data dependent upon this said offer identification are transmitted by means of short messages via said telecommunications network to a service center, which recognizes the customer and links at least certain of the data contained in said short message to participant identification data, and transmits the linked data to the respective supplier.

It is an object of this invention to propose new methods of offering for sale, ordering and selling goods and services which are in particular also suitable for supporting vendors of goods and services having in each case a limited available number.

This object is achieved according to the invention through the elements of the characterizing part of the independent claims. Further preferred embodiments following moreover from the dependent claims and from the specification.

In particular, this object is preferably achieved in that an indication of quantity is stored for at least certain of the goods and services offered for sale which corresponds to the limited available quantity of the respective item or service offered for sale, in that, for a received order, a token is generated for at least certain goods or services offered for sale, if a respective item or a respective service is available, this token being transmitted to the respective vendor and to the respective participant, and for each received order for which a token was generated, or respectively transmitted, the corresponding quantity indication about the available number is decreased by increments.

Goods and/or services offered for sale are preferably offered to the participants via different communications channels, at least certain offers containing an offer identification.

An ordering participant is preferably recognized with each order and, on the basis of his identification, order data transmitted by him are linked to corresponding participant identification data.

The offer for a particular item being offered for sale or for a particular service being offered for sale is preferably stopped when the available number

indicated by the respective quantity indication is zero. In a variant, the offer can also be stopped when the offer has expired, i.e. when an expiration date for an item or service being offered for sale has passed, when the vendor withdraws them < *sic. it*> and/or when the supply conditions, for example the price or the availability of the products offered for sale, have changed.

At least certain of the tokens which are transmitted to the participant, via a mobile radio network to his mobile device, are stored in a chipcard removably connected to this mobile device, and at least certain of the tokens stored on this chipcard can be used at an admission control point as an admission ticket or as the link to a set of admission tickets.

In a variant, interested participants can preferably additionally enter an order quantity with which they can order more than one item or one service and which is transmitted together with the order data.

- With such multiple orders, depending upon the variant, if sufficient goods or services are available, a plurality of tokens are generated, corresponding to the ordered quantity, and are transmitted to the vendor, respectively to the participant, or one token is generated and transmitted, which contains a delivery number that corresponds to the ordered quantity. If only an insufficient quantity of the ordered goods or services is available, depending upon the variant, at least the corresponding number of tokens is generated and transmitted or one token with the corresponding delivery number. The quantity indication on the goods and services available is decreased by increments by the number delivered.

In a variant, the solvency of an interested participant is checked prior to generation of a token, or respectively before its transmission.

- A negative decision is preferably transmitted to an interested participant, for example over the mobile radio network, if a corresponding token is not generated for his received order, or respectively cannot be transmitted, either because he is not solvent, because sufficient goods or services are not available, or because the offer has expired or has been withdrawn.
- Depending upon the variant, the costs of an item or service ordered by a participant, for which a token was generated, or respectively transmitted, are charged to him in his bill for the communications costs, for example in the mobile radio network, in a bill from a financial services provider, or are charged directly to an electronic account in the chipcard removably connected to his mobile device.
- In a variant, vendors can pass on to an automated offer server information about goods and services to be offered for sale.

An embodiment of the present invention will be described in the following with reference to an example. The example embodiment is illustrated by the following appended figures:

- Figure 1 comprises a block diagram, which illustrates schematically the data flow between a vendor of goods and/or services, a participant in a mobile radio network, a service center of this mobile radio network, an offer server, a mediating module as well as a sales module.

Figure 2 shows flow charts which illustrate, schematically and by way of example, the program flow of the programmed software process for receiving and processing offers and orders in a sales module.

The reference numeral 1 refers to a vendor of goods and/or services, which we also combine under the designation "products" in the following description, whereby this vendor 1 would like to offer for sale in particular products of limited available quantity in each case. This vendor 1 can be organizations, for example small, medium-sized or large enterprises, which manufacture or sell goods or offer for sale or mediate services, or it can be individual, or groups of, private persons who would like to market products. Besides the limited available number of these products, which can also be very small and can comprise, for example, only a single or a few products, these products can also be of limited life, i.e. can have an expiration date, for example involved can be an admission ticket to a sports event or a concert that takes place only on a particular day, or involved can be perishable products, such as foodstuffs. The product can also be information, for example text, audio, video and/or multimedia data which are ordered by the participant and are transmitted to him by the vendor 1 via a suitable transmission channel, for example as SMS short messages or USSD data via a mobile radio network, as e-mail over the Internet, as DAB (Digital Audio Broadcasting) program-accompanying data, etc.

A vendor 1 can transmit data about products to be offered for sale, for example the name or the designation of the product, possibly a short description, a number indication with respect to available quantity, price information, as well as an expiration date (still valid at the time of the offer), if applicable, to a service provider 3 responsible therefor. This data flow indicated by the arrow 2 can take place by means of paper, in that, for example, a form intended for this purpose is filled out and is passed on to the service provider or in that it is transmitted to the service provider 3 by means of fax. The data flow of these offer data 2 can also take place by electronic and automatic way, however, in that the service provider 3 is represented by an offer server 3 to which a vendor 1 can pass on the described offer data via a computer terminal. The respective terminals can be installed at a place accessible to the public, for example, and can be connected to the offer server 3 via fixed networks or mobile networks, or the input terminal can be a program application on the Internet that can be used by a vendor 1 via his PC. There are numerous possibilities which can be executed by one skilled in the art. In addition to the offer data described, information about the vendor 1 also has to be given to the service provider 3, which, depending upon the embodiment

variant, has to be transmitted again each time or is stored in a data base so that an unambiguous identification of the vendor 1 suffices, in addition to the offer data.

In the data flow indicated by the arrow 4 in Figure 1, the offer information of the vendor 1 captured by the service provider 3, respectively by the offer server 3, is transmitted, together with the identification of the vendor, to the mediating module 5, for example over a fixed network. If, on the basis of the possible expiration date, it is determined that the product has expired, an error message is transmitted to the service provider 3, respectively to the offer server 3, which message can be passed on by the service provider 3, or respectively the offer server 3, to the respective vendor 1. Otherwise, if the product has not expired, an offer identification is generated, for example in the mediating module 5, which identification comprises at least data for identification of the product to be offered for sale as well as of the respective vendor 1. The offer identification can be communicated to the respective vendor 1 in a confirmation. Depending upon the embodiment variant, this can take place from the mediating module 5 via the service provider 3, respectively the offer server 3, or directly from the mediating module 5 to the vendor 1. The offer identification can also be generated in the offer server 3, and then confirmed to the vendor 1 and transmitted to the mediating module 5. Finally, it is also possible for the offer identification to be defined directly by the vendor 1 on the basis of format models, and then checked as to correctness and clarity by the offer server 3 or by the mediating module 5.

Such an offer identification can comprise a plurality of fields. A first field contains, for example, a designation of the vendor 1, for example a mnemonic (code) of a plurality of alphanumerical symbols. A second field, which is separated from the first through a field delimiter, for example, contains a product identification which designates a particular item, a service or the supply of information and can likewise comprise a plurality of alphanumerical symbols. A further field, for example again separated from the product identification through a field delimiter, contains a check sum which is determined from the preceding fields through an error checking or error correcting algorithm known to one skilled in the art. Fields of constant, predefined length or fields with length indications can also be used, instead of field delimiters.

In the data flow indicated by the arrow 8, certain offer data are transmitted by the mediating module 5 to the sales module 9. The data transmitted in the data flow 8 comprise information on identification of the vendor 1 and of the products to be offered for sale as well as indications about the available quantity

of the product offered, optionally the price of the product, as well as possibly the expiration date of the product. The sales module 9 can be achieved by one skilled in the art as a programmed software process, which can be installed on an own, separate or on a common computer together with other software applications. The programmed software process, which is illustrated in Figure 2 by way of example, receives the offer information from the mediating module 5 in step 100, and if the possible expiration date of the offered product has not yet passed, stores it in a data base in step 101, which data base is installed by one skilled in the art on the same computer or on another computer accessible to the sales module 9.

The region of Figure 1 enclosed by the triangle 30 of broken lines comprises parts, in particular a service center 11, from the system and method for transmission of orders, which was described above, as well as communications channels 61, 62, 63 which have been described in the not yet published patent application in the name of the (present) applicant PCT/CH98/00148 concerning a data broadcasting system and data broadcasting method.

The offer identification, generated by the mediating module 5, respectively received therefrom by a vendor 1, can be broadcast, typically together with additional information on the product to be offered for sale, according to the above-mentioned data broadcasting system and data broadcasting method via one or more different possible communications channels, so-called broadcasting channels 61, 62, 63, to a multiplicity of participants 7. These data are thereby stored in an information data base according to this above-mentioned data broadcasting system and data broadcasting method, where they can be intended to be transmitted to particular participants 7 or participant groups via different specific broadcasting channels 61, 62, 63. The broadcasting of data from the information data base takes place automatically according to transmission criteria, which comprise the address of a participant 7 or a participant group, indications about the data to be transmitted as well as about a broadcasting channel 61, 62, 63 to be used. Possible broadcasting forms and broadcasting channels are, for example, messages in digital mobile radio networks, for example SMS short messages or USSD data, messages in pager systems, addressed messages, such as, for example, e-mail, via the Internet, teletext pages in a teletext channel, program-accompanying data in a DAB (Digital Audio Broadcasting) channel, fax messages in a public telecommunications network, display of the data on a display panel, or printing of the information in catalogs or other printed media. According to this above-mentioned data broadcasting system and data

- broadcasting method, the data can also comprise, for example, other text information and/or multimedia data in addition to the described offer identification for ordering goods and/or services. It is also possible that the mentioned transmission criteria can be administered by the participants 7 via a
- 5 telecommunications system, for example over the Internet or by means of special messages over a mobile radio network. In this way the participants 7 can, for example, establish categories, themes, types or vendors of information, in particular goods, groups of goods, services and/or groups of services in which they are interested, and they can establish transmission times and/or periodicity.
- 10 The transmission of data can also be bound to certain events by means of corresponding transmission criteria.

- A participant 7 in a mobile radio network 20, for example a GSM or UMTS network, who gains knowledge about the product offered and in particular knowledge about the corresponding offer identification, via the mentioned
- 15 communications channels 61, 62, 63, can order this product according to the described method for transmission of orders. Therefore the offer identification, entered by the interested participant 7 in his mobile device, for example a mobile radio telephone or a portable personal computer, for example a laptop or palmtop with corresponding mobile radio functionality, or received by this mobile device,
- 20 can be used as the basis for transmitting a corresponding short message, for example an SMS short message or USSD data, via a mobile radio network, for example a GSM or UMTS network, to the service center 11 by means of the data flow indicated by the arrow 10. The transmission and handling of the data in the short messages to the, and in the, service center 11 takes place, for example,
- 25 according to the SICAP method, which has been described, inter alia, in EP 689 368, or according to a similar method or based on WAP (Wireless Application Protocol).

- The service center 11 comprises, for example, a Short Message Service Center (SMSC) and a module for execution of the above-mentioned SICAP
- 30 method; the participant 7 can thus be recognized on the basis of the identification of the received short message, and, according to the SICAP method, the content of the short message can be passed on to a respective application, established through a data header of the short message, for further processing. In this application, which can likewise take place in the service center 11, at least certain
- 35 of the order data contained in the short message are linked with identification data of the recognized participant 7 from a participant data base of the mobile radio network 20 accessible to the service center 11. The linked identification data

comprise at least the address of the interested participant 7, possibly also his language and also further information, for example an additional billing and/or delivery address or indications about the solvency of the respective participant 7.

In the data flow indicated by the arrow 12, the linked order data, which consequently comprise at least the mentioned identification data of the participant 7 as well as information on the identification of the offered or respectively ordered product, and of the respective vendor 1, are passed on to the mediating module 5.

In the data flow indicated by the arrow 13, the mediating module 5 passes on the order data, received from the service center 11, to the sales module 9, where, in step 200, they are received and further processed by the programmed software process illustrated in Figure 2, as will be described now in more detail.

In an embodiment variant, in step 201, the solvency of the participant 7 who has given the respective, received order, is first checked. This can take place on the basis of information stored in a data base accessible to the sales module 9, for example a data base which is administered by the operator of the mobile radio network 20 or by a financial services provider. In a variant, information on the solvency of the participant 7 can be transmitted to the sales module 9 also by the service center 11, or respectively by the mediating module 5, together with the linked order data. If the solvency of the participant 7 cannot be guaranteed, a negative decision is sent to the respective participant 7 with the corresponding justification in step 203 of the software program, for example by means of short messages, e.g. an SMS short message or USSD data, via a mobile radio network 20, for example a GSM or UMTS network. For this purpose, the sales module 9 together with the respective computer hardware are provided with the corresponding communications means by one skilled in the art. The negative decision, giving the reason, is received by the mobile device of the respective participant 7 via the mobile radio network 20 and is shown on the display of this mobile device. Otherwise, if the solvency of the participant 7 is guaranteed with respect to the order, the software program of the sales module 9 continues with step 202.

Checked in step 202 is whether the available quantity of the ordered product is greater than zero at the moment. If the ordered product is no longer available, i.e. if the available quantity is zero, a negative confirmation with the corresponding justification is sent, as mentioned above, to the respective participant 7 in step 203 of the software program. Otherwise, in step 204, a token is generated which represents an unambiguous certificate, and which also

contains, for example, information for identifying the ordered product and/or the respective vendor 1. The token can be encrypted, for example, using means known to one skilled in the art, and can be provided with a digital signature in order to guarantee its authenticity and ensure security. It should be mentioned here that in an alternative embodiment a number of tokens corresponding to the available offered quantity of products can be generated and stored already during receiving and storing of the offer in steps 100 and 101, whereby step 204 accordingly becomes unnecessary in this form.

In a step not explicitly shown, if applicable, a check is made by the software program on the basis of the expiration date as to whether the product has not expired at the time of ordering. If the product has actually expired, this will be communicated to the respective participant 7, in a similar way as described above, by means of a negative confirmation with the corresponding justification. Besides the expiration date, there can of course be also other reasons why an offer is no longer valid. For example, an offer can be withdrawn by the vendor and/or supply conditions can have changed, for example the price or the availability of the offered products. Corresponding functions for receiving information relating thereto, for example from the respective vendor 1, and for their linking prior to the generation and transmission of a token can be implemented by one skilled in the art.

In step 205, the generated token, together with indications about the respective participant 7, for example his identity and address, and with information on the respective ordered product and the respective vendor 1, for example in the form of the offer identification indicated in the order, can be transmitted to the vendor 1. Depending upon the embodiment variant, and possibly also depending upon the respective product, this can be carried out, in the data flow indicated by the arrow 15 in Figure 1, in electronic form via a fixed network, for example by means of EDI or e-mail, via a mobile radio network or through conventional means with paper via the post or by means of fax.

In step 206, the generated token is transmitted to the respective participant 7, together with a positive confirmation. The transmission takes place, for example, by means of short messages, for example an SMS short message or USSD data, over a mobile radio network 20, for example a GSM or UMTS network. This positive confirmation is received by the mobile device of the respective participant 7 and is shown on the display of the mobile device. The token is stored, for example, on a chipcard which is removably connected to the mobile device, and can be used at a later point in time at an admission control

point as an admission ticket, for example, or as a link to a set of admission tickets, for example at a sports event, a concert, a play, etc. For this purpose and other purposes, the token can be stored, for example on the chipcard, e.g. an SIM card (Subscriber Identity Module) and/or a chipcard in accordance with the OpenCard type, as an applet, e.g. a Java applet, which then finds application as a ticketing applet at a corresponding, automated admission control point, for example in that it is transmitted to this admission control point by means of a contactless interface. With such types of products, the token is correspondingly integrated by the vendor 1 into his admission process, so that the admission control can run correctly. In general, a token stored on the chipcard can serve at a later point in time as a record for the successful ordering of a respective product, and can be cancelled again, for example, with its exchange for the respective equivalent, i.e. the handing over of an item or the execution of, or respectively admission to, a service.

In step 207, the ordered product, transmitted in the form of a token, is billed to the participant 7. This can be resolved in such a way that the costs for the ordered product as well as indications on identification of the respective participant 7 are entered into a data base accessible to the sales module, for example the same data base in which the offers are stored, or the necessary data are transmitted to a financial services provider. If the billed costs are stored by the sales module in a data base, they can be processed in batch mode at a later point in time in that they are transmitted periodically to a financial services provider for further processing and charging to the participant 7, for example, or in that the costs to the respective participant 7 are added directly to his bill for the communications costs in the mobile radio network 20. In a further variant, the costs can be charged to the respective participant 7 directly on his chipcard, for example in that a corresponding sum is deducted from a prepaid monetary amount stored on the chipcard. With the aid of a security method known to one skilled in the art, corresponding instructions can be transmitted, via the mobile radio network 20, to the chipcard, removably connected to the mobile device of the participant 7.

In step 208, the quantity indication about the number of respective, available products is kept track of in that it is decreased by increments in the sales module 9.

Checked in step 209 is whether the quantity indication about the current number of respective products available is zero, i.e. whether a product is not available anymore. If respective products are still available, (the method)

continues in step 200 with the acceptance of a new order, if applicable. If, however, no corresponding product is available anymore, an instruction is transmitted, in step 210, to the mediating module from the sales module to stop the offering for sale of the respective product, as is indicated by the data flow 16 in Figure 1. In addition, a confirmation is sent to the respective vendor 1 that the offer has been terminated, for example. Depending upon the variant, this confirmation can also contain a settlement of accounts and/or inform the vendor 1 about how many products were sold. Afterwards, (the method) continues with the acceptance of a new order in step 200, if applicable. Step 210 can be carried out also when the expiration date for a product offered for sale runs out, for example, through a separate process which checks the stored offers periodically. As mentioned above, such instructions to stop an offer can also be transmitted for other reasons, for example the withdrawal of an offer by the vendor 1 or changed supply conditions, such as availability or price. In the mediating module 5, receipt of this instruction to stop the offering for sale of a particular product has the result that the broadcasting of the offer identification for the particular product via the different communications channels 61, 62, 63 is brought to an end, i.e. is terminated.

In an embodiment variant, it is possible for an interested participant 7 to be able to enter in addition an order quantity during the entering and transmission of an order described above, which order quantity is transmitted to the service center 11 together with the order data in the indicated data flow 10. This order quantity is transmitted by the service center 11 to the mediating module 5 together with the linked order data described above, and is passed on from there to the sales module 9, where it is received in step 200 by the programmed software process, illustrated in Figure 2.

In a first sub-variant of the multiple order, a further, additional token continues to be generated in the software program and the quantity indication for the available number of the respective product continues to be decreased by one increment until either the incrementally decreased quantity indication is zero, i.e. no further respective articles are available anymore and the order cannot be completely filled, or until the number of generated tokens corresponds to the ordered quantity, i.e. all respective products ordered can be supplied. In this first sub-variant, therefore, a token is generated for each product that can be supplied, and is transmitted to the participant 7. If there are not enough products available, the available number of tokens is transmitted to the participant 7 together with a

corresponding confirmation. As mentioned above, in an alternative embodiment, the tokens can be generated and stored already in steps 100 and 101.

In a second sub-variant of the multiple order, if the said quantity indication is greater than zero, a token is generated which contains a supply number, which, beginning at zero, continues to be increased by one increment, and the indication of quantity of the respective products available is decreased by one increment until the supply number corresponds to the said order quantity, i.e. there are sufficient products available, or until the incrementally decreased quantity indication for the respective products available is zero, i.e. there are not enough products available, and the order cannot be completely filled. Thus, in this second sub-variant, only one token is generated for a plurality of ordered products, and is transmitted to the participant 7, this token containing, however, the number of supplied products. If not enough products are available, a corresponding confirmation is additionally transmitted to the participant 7. As mentioned above, in an alternative embodiment, the tokens can be generated and stored already in steps 100 and 101, i.e. in this second sub-variant of the multiple order as many of such pre-generated tokens are "destroyed" as correspond to the supply number of the transmitted token.

The two described sub-variants of the multiple order can also be used in combination by one skilled in the art, for example depending upon the respective products offered for sale and ordered.

For the case where an order can only be filled incompletely, it can be made possible by one skilled in the art through additional steps, which will not be gone into more closely here, for a participant 7 to cancel the only partially filled order, and thus increase the number of available products again by the number of returned tokens. A participant can generally be offered the possibility of cancelling an order; however a fee therefor can be charged to him, if necessary.

It should also be mentioned here that the described method can be implemented by one skilled in the art in such a way that an interested participant 7 can order a plurality of different products at the same time.

The data flows indicated by the arrows 8, 12, 13, and 16 between the service center 11 and the mediating module 5, respectively between the mediating module 5 and the sales module 9, depending upon the embodiment variant and implementation of these servers, are carried out by one skilled in the art as computer-internal communication if the corresponding software programs are installed on the same computer, or are carried out via local fixed networks, for

example via LAN's or high-speed buses, if the corresponding software processes are implemented on different computers.

The services of the described method can be charged to the vendors in various forms. For example, they can be asked to pay, for example, a one-time, a
 5 monthly or a yearly basic charge and additionally a commission, for example in proportion to the number of objects sold or offered for sale or in relationship to the proceeds from the sale of these objects.

Besides the possibilities of earnings through offering the services from the described method, it is also possible to sell a server, and in particular the software
 10 programs for a sales module 9.

Although only few application examples have been given here, the possibilities for application are almost unlimited, and the most varied types of electronic and automated bazaars and marketplaces can be implemented. It must
 15 also be mentioned here that the described method is suitable not only for incrementally decreasing processes in which, for example, the quantity indication or the number of tokens are decreased by increment, but it can also be very well applied to incrementing processes as well in which, for example, corresponding to the application, a quantity indication or a number of tokens is increased by increment.

20 Through extension of the indicated data flows 10 and 14 to fixed networks, for example the Internet or the public switched telephone network (PSTN), such bazaars and marketplaces can also be made accessible to participants in these fixed networks.

Claims

1. An order method with which participants (7) in a mobile radio network (20) can order goods and/or services from a multiplicity of vendors (1), various goods and/or services offered for sale being identified with different
 5 corresponding offer identifications, each offer identification comprising an identification of the vendor (1), participants ordering a particular item and/or a particular service by entering the corresponding offer identification into their mobile device and transmitting corresponding order data via said mobile radio network (20) to a sales module (9), and a quantity indication being stored for at
 10 least certain of the goods and services offered for sale, which quantity indication corresponds to the limited available number of the respective item or service offered for sale, wherein

tokens, which correspond to certain goods and/or services, are made available in a limited number by said sales module (9), which number
 15 corresponds to the available number of the respective item or service offered for sale, a token representing in each case an unambiguous certificate with information on identification of the ordered item or the ordered service and/or of the respective vendor, and a token being exchangeable in each case for the respective item or the respective service, and wherein

20 during an order, if the respective item or the respective service is available, a corresponding token is transmitted via said mobile radio network (20) to the mobile device of an ordering participant (7) and is stored there, the corresponding quantity indication about the available number being decreased by increments for each received order for which a token was generated or
 25 respectively transmitted.

2. The order method according to the preceding claim, wherein the participant (7) is recognized with each order.

3. The order method according to the preceding claim, wherein the order data are linked to participant identification data.

30 4. The order method according to the preceding claim, wherein said

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participant identification data comprise a delivery address.

5. The order method according to one of the preceding claims, wherein order data are automatically routed to the vendor (1) indicated in the order data.

- 5 6. The order method according to one of the preceding claims, wherein goods and/or services are offered for sale to the participants (7) via various communications channels (61, 62, 63), at least certain offers containing an offer identification.

7. The order method according to the preceding claim, wherein the
10 offering for sale of an item or a service is stopped (210) when no corresponding tokens are available anymore.

8. The order method according to one of the claims 6 or 7, wherein the offering for sale of an item or a service is stopped (210) when the expiration date for this good or service has passed.

- 15 9. The order method according to one of the preceding claims, wherein at least certain of said tokens transmitted to the mobile device of the participant (7) are stored on a chipcard removably connected to this said mobile device.

10. The order method according to the preceding claim, wherein at least
20 certain of the tokens stored on said chipcard are usable as an admission ticket at an admission control point.

11. The order method according to the preceding claim, wherein at least certain of said ordering participants (7) additionally enter an order quantity which is transmitted to said sales module (9) together with said order data.

12. The order method according to the preceding claim, wherein a
25 number of tokens, if available, are transmitted corresponding to said order quantity.

13. The order method according to one of the claims 11 to 12, wherein tokens which comprise a supply number are transmitted.

14. The order method according to one of the preceding claims, wherein

a said vendor (1) passes on to an automated offer server (3) information about said goods and/or services to be offered for sale.

15. The order method according to one of the preceding claims, wherein, in an additional step, the solvency of a said ordering participant (7) is checked before a said token is transmitted.

16. The order method according to one of the preceding claims, wherein a negative decision is transmitted to a said ordering participant (7) via said mobile radio network (20) when a token corresponding to his received order is not available.

- 10 17. The order method according to one of the preceding claims, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him in his bill for the communications costs in said mobile radio network (20).

- 15 18. The order method according to one of the claims 1 to 16, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him in a bill from a financial services provider.

- 20 19. The order method according to one of the preceding claims *<one of the claims 1 to 16>*, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him on his chipcard.

- 25 20. A sales method for selling goods and/or services of limited available quantity which are offered for sale by at least one vendor (1) to a multiplicity of participants (7) in at least one mobile radio network (20) via at least one communications channel (61, 62, 63), in which sales method information about said goods and/or services offered for sale is received and stored (100, 101), which information comprises at least an identification of said goods and/or services, an identification of their said vendor (1) as well as a quantity indication about said available number, and in which sales method orders are
30 accepted (200) which contain at least an identification of the said goods and/or

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services, an identification of their vendor (1) as well as identification data on the interested said participant (7), wherein

tokens, which correspond to certain goods and/or services, are made available by a sales module (9) in a limited number, which number corresponds to the available number of the respective item or service offered for sale, a token representing in each case an unambiguous certificate with information on identification of the ordered item or the ordered service and/or the respective vendor, and a token being in each case exchangeable for the respective item or the respective service, and wherein

during an order, if the respective item or the respective service is available, a corresponding token is transmitted via said mobile radio network (20) to the mobile device of an ordering participant (7) and is stored there, the corresponding quantity indication about the available number being decreased by increments for each received order for which a token was generated or respectively transmitted.

21. The sales method according to the preceding claim, wherein instructions to stop the offering for sale of a respective item or a respective service (210) are issued are when the respective said quantity indication equals zero (209).

22. The sales method according to one of the claims 20 to 21, wherein instructions to stop the offering for sale of a respective item or a respective service are issued when an expiration date for this respective item or this respective service has passed.

23. The sales method according to one of the claims 20 to 22, wherein a received said order further comprises an order quantity.

24. The sales method according to the preceding claim, wherein tokens are transmitted, the number of which corresponds to the order quantity when enough respective goods or services are available.

25. The sales method according to one of the claims 23 to 24, wherein a token is transmitted which comprises a delivery number.

26. The sales method according to one of the claims 20 to 25, wherein,

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in an additional step (201), the solvency of a said interested participant (7) is checked before a token corresponding to his received order is transmitted to him (204).

27. The sales method according to one of the claims 20 to 26, wherein a negative decision is transmitted (203) to a said interested participant (7) via said mobile radio network (20) when a token corresponding to his received order cannot be transmitted.

28. The sales method according to one of the claims 20 to 27, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him in his bill for the communications costs in said mobile radio network (20).

29. The sales method according to one of the claims 20 to 27, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him in a bill from a financial services provider.

30. The sales method according to one of the claims 20 to 29, wherein the costs of an item or service ordered by a said ordering participant (7), for which a token was transmitted, are charged to him on his chipcard.

31. The sales method according to one of the claims 20 to 30, wherein said identification data on the interested participant (7) comprise a delivery address.

Abstract

Method of offering for sale, ordering and selling goods and services, in which these products are offered for sale by at least one vendor (1) to a multiplicity of participants (7) in a mobile radio network (20) via various communications channels (61, 62, 63), interested participants (7) entering an offer identification into their mobile devices and transmitting this offer identification by means of short messages over the mobile radio network (20) to a service center (11), which recognizes a participant (7) and links data contained in the short message with participant identification data, for at least certain products the available quantity thereof being stored (101) and a token being generated (204) for a suppliable received order, which token is transmitted to the respective vendor (1) and to the mobile device of the respective participant (7), and the quantity indication being gradually decreased for each received order for which a token has been generated, and the supply of a product offered for sale being stopped (210) when said quantity indication equals zero (209) or its expiration date has passed.

20

25

(Figure 1)

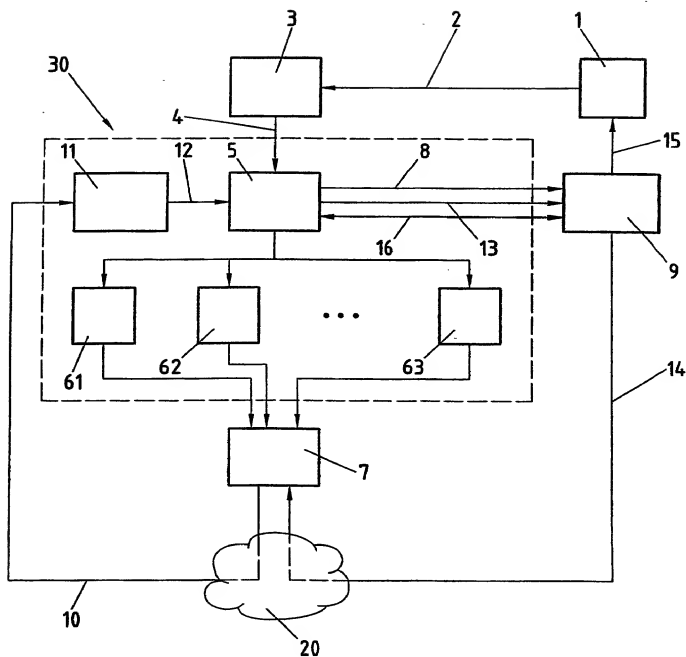


FIG. 1

2/2

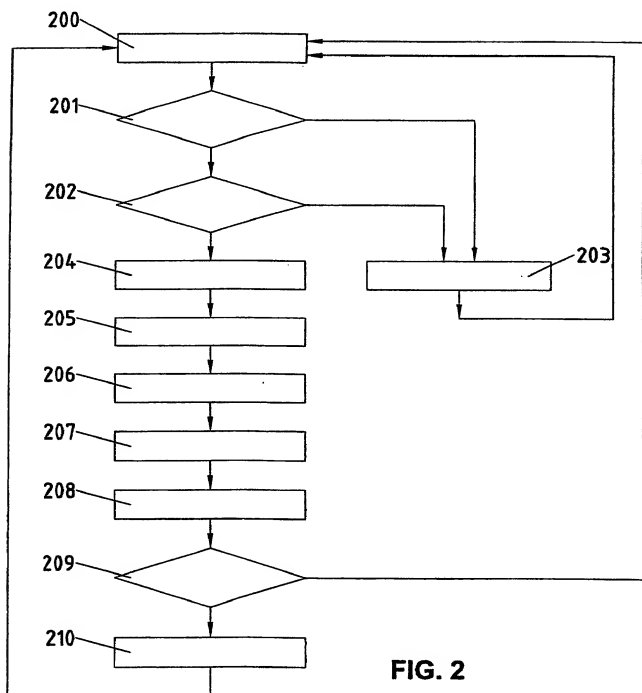
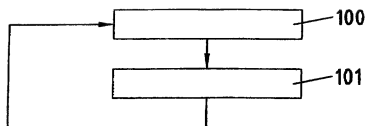


FIG. 2

FOR UTILITY/DESIGN
CIP/PCT NATIONAL/PLANT
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DECLARATIONS

RULE 63 (37 C.F.R. 1.63)
DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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FORM

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the INVENTION ENTITLED

Method of Offering for Sale, Ordering and Selling Goods and Services

the specification of which (CHECK applicable BOX(ES))

X ☐ is attached hereto.
BOX(ES) ☒ was filed on _____ as U.S. Application No. _____
☒ was filed as PCT International Application No. PCT/CH 98/00276 on 23 June 1998
and (if applicable to U.S. or PCT application) was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/385 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing date of this application:

PRIOR FOREIGN APPLICATION(S)		Date first Laid-	Date Patented	Priority Claimed
Number	Country	open or Published	or Granted	Yes No

I hereby claim domestic priority benefit under 35 U.S.C. 119/120/365 of the indicated United States applications listed below and PCT international applications listed above or below and, if this is a continuation-in-part (CIP) application, insofar as the subject matter disclosed and claimed in this application is in addition to that disclosed in such prior applications, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of each such prior application and the national or PCT international filing date of this application:

PRIOR U.S. PROVISIONAL, NONPROVISIONAL AND/OR PCT APPLICATION(S)		Status	Priority Claimed
Application No. (series code/serial no.)	Day/MONTH/Year Filed	pending, abandoned, patented	Yes No

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint Pillsbury Madison & Sutro LLP, Intellectual Property Group, 1100 New York Avenue, N.W., Ninth Floor, East Tower, Washington, D.C. 20005-3918, telephone number (202) 881-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to delete names/numbers below of persons no longer with their firm and to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct the above firm and/or a below attorney in writing to the contrary.

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